1017-73 Mortality within 24 Hours of Coronary Intervention is Greater in Women than Men

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We have previously shown that gender does not influence the outcome of emergency bypass surgery for complicated PTCA. To compare mortality within 24 hours of PTCA for men and women not going to emergency CABG, we reviewed all patients (n = 3627) undergoing PTCA from 7/89 - 3/93 at our institution, and identified 32 (0.9%) who died within 24 hours of coronary intervention.

	Women	Men	P
Number of Patients (%)	21/1345 (1.6%)	11/2282 (0.5%)	0.001
Age (years ± SD)	66.0 ± 14.6	66.7 ± 10.4	NS
Prior MI (%)	9/21 (43%)	6/11 (54%)	NS
Prior CABG (%)	2/21 (10%)	2/11 (18%)	NS
Emergent PTCA (%)	12/21 (57%)	8/11 (73%)	NS
Cardiogenic Shock (%)	11/21 (52%)	6/11 (54%)	NS
Acute MI (%)	12/21 (57%)	8/11 (72%)	NS
Thrombolytics (%)	8/21 (38%)	5/11 (45%)	NS
Triple Vessel CAD (%)	10/21 (48%)	7/11 (63%)	NS
Post-PTCA Stenosis <50% (%)	16/21 (76%)	7/11 (63%)	NS
Death in Cath Lab (%)	10/21 (48%)	7/11 (63%)	NS
Bleeding Complication (%)	4/21 (19%)	0/11 (0%)	0.12
Cardiac Death (%)	17/21 (81%)	11/11 (100%)	0.12

We conclude that mortality within 24 hrs following PTCA in patients not having emergency CABG is more than 3 times higher in women than men despite comparable age, extent of coronary disease, and procedural reduction of luminal stenosis. Although the cause of the increased mortality in women is unclear, non-cardiac complications in women may be a contributing factor.

1017-74 Length of Hospital Stay After Percutaneous Transluminal Coronary Angioplasty: Clinical and Angiographic Predictors

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Although several studies have shown that the complications of percutaneous transluminal coronary angioplasty (PTCA) are related to baseline clinical and angiographic variables, it is uncertain whether the utilization of hospital resources after PTCA also depends on the same characteristics. The purpose of this study was to identify the factors responsible for prolonged hospital stay (LOS) after PTCA. In 591 consecutive patients undergoing PTCA at nine centers in North America, major or minor complications occurred in 91 patients (15.4%) and were found to be related to the presence of multivessel disease ($p = 0.02$), unstable angina ($p = 0.02$), and advanced age ($p = 0.002$) on multivariable logistic regression analysis. As compared with a median length of stay of 2.0 days (2.0, 4.0 [25th, 75th percentiles]) for 500 patients (84.6%) after uncomplicated PTCA, the length of stay was 9.0 days (8.0, 18.0) for 19 patients (3.2%) requiring emergency bypass surgery ($P < 0.001$), and 6.0 days (3.0, 10.5) for 65 patients (11.0%) with established or threatened abrupt closure ($P < 0.001$). On stepwise multilinear regression analysis, however, no significant relation was found between LOS and baseline variables; instead, LOS was increased only by PTCA complications:

Variable	Increase in LOS (days ± SEM)	P
Emergency CABG	9.5 ± 1.1	<0.001
Death	7.7 ± 1.4	<0.001
Myocardial infarction	2.9 ± 0.9	<0.001
Abrupt closure	2.9 ± 0.6	<0.001
Age	0.04	0.32
Female sex	−0.01	0.99
Unstable angina	0.06	0.15
Multivessel disease	0.06	0.17
Complex lesion	0.29	0.20

In conclusion, efforts directed at reducing resource utilization after PTCA should focus on the development of new techniques to lower PTCA complications rather than limit the access of patients with advanced age and complex lesions to PTCA.

1017-75 Delayed Views Post PTCA Predict Acute and In-Hospital Complications in Patients with Unstable Angina

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Adverse in-hospital ischemic complications are increased following PTCA in unstable angina in comparison to stable angina and may relate to the high incidence of intracoronary thrombus associated with unstable angina. We have previously noted that following PTCA, delayed views (15 min. postPTCA) often demonstrate lesional irregularities and filling defects suggestive of thrombus not noted immediately (1 min.) following PTCA. In the TAUSA trial, unstable angina patients were randomized to Urokinase or placebo during PTCA of the culprit lesion. One and 15 minute post PTCA angiograms were routinely assessed for major dissection (MD) or thrombus (T) formation. Because ischemic events were increased with urokinase, only placebo patients were evaluated in this analysis. MD was defined as a spiral D or a D causing >50% diameter reduction.

	No T or MD at 15 min. (N = 170)	T or MD at 15 min. (N = 50)	No T or MD at 1 min. (N = 202)
Acute closure (%)	0*,‡	8*	2 ‡
Emergent bypass (%)	0†	4†	0.5
Any ischemic in-hospital event (%)	3.5‡	10‡	4

*$p < 0.005$, †$p = 0.05$, ‡$p < 0.10$

The presence of T or MD at 15 min. post PTCA was associated with a higher incidence of acute closure and other adverse clinical events vs. no T or MD at 15 min. post PTCA. There was a trend to a lower incidence of acute closure when the 15 min. angiogram revealed no T or MD in comparison to no T or MD at 1 min. post PTCA. Thus, T or MD on delayed views identify a group of patients who are at a higher risk of adverse events. The absence of T or MD at 15 min. following PTCA in unstable angina is associated with few adverse events. These data suggest that delayed views should be routinely performed following PTCA in unstable angina.

1017-108 Cost Savings with 6 Compared to 8 French Guiding Catheters Used in Coronary Angioplasty

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To determine the possibility of cost savings with smaller (6 French, F) vs larger (8 F) guiding catheters (GC) during PTCA, a prospective randomized trial was performed in 160 patients at 3 separate hospitals. Standard PTCA balloon catheters were used. Resource utilization was calculated with "bottom-up" cost analysis and physician cost was determined with use of the resource based relative value scale. Endpoints included: cost of PTCA supplies, support personal, post-PTCA room, physician; quantitative angiography; and clinical success. (Mean cost were: $R^2 = 0.25$)

	Cath Lab $			Post-PTCA $		Total $
	Supplies	RN	MD	Hospital	MD	
6F	1470	106	1156	1026	181	3956
8F	1724	118	1207	1705	297	5073
p	0.003	NS	NS	0.04	0.08	0.03

Variables associated with increased total cost included: hypercholesteremia, 8F GC, and prolonged cath lab time. Less contrast was used with 6F; visualization was improved with 8F GC.

Thus: The use of 6F GC resulted in dramatic cost savings during elective PTCA, primarily due to a reduction in post procedure hospital costs. Visualization was improved with 8F GC; however, there was no difference in procedural or clinical outcomes. The decision to use 6F GC is a dynamic balance between angiographic quality and cost reduction.

1017-109 Revascularisation and Quality of Life: Improved Self-Perceived Well-Being, Following PTCA or CABG Surgery

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Patients with chronic stable angina treated with either CABG (n = 353 from Oct 1988 to Dec 1989) or PTCA (n = 118 from Feb 1989 to Oct 1990) were studied prospectively for 1 year after each procedure. Patients were similar age (54 yrs ± 9 for PTCA vs 58 yrs ± 8 for CABG) but a higher proportion